

FIG. 1

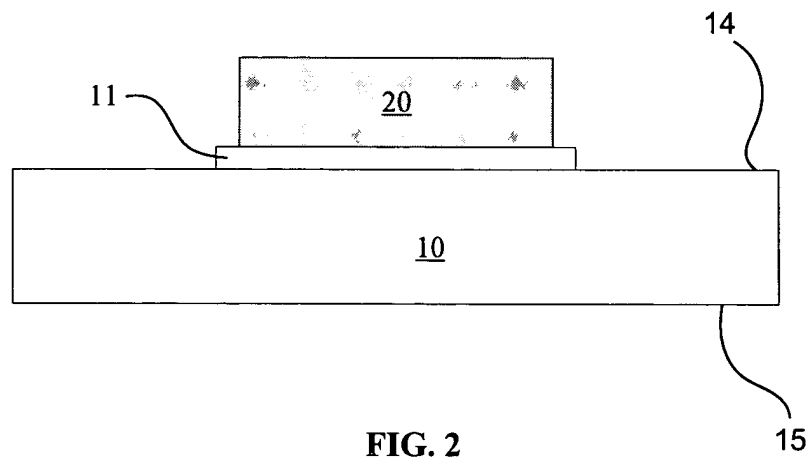


FIG. 2

TITLE: METHOD FOR MAINTAINING SOLDER  
THICKNESS IN FLIPCHIP ATTACH  
PACKAGING PROCESSES  
INVENTORS: Consuelo N. Tangpuz  
DOCKET NO.: 11948.26

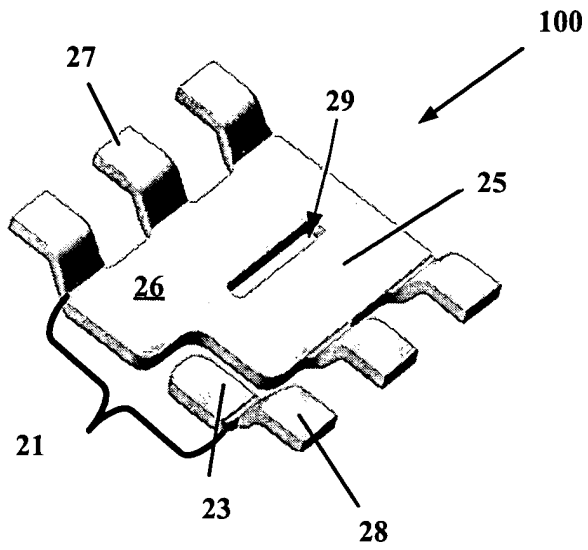


FIG. 3

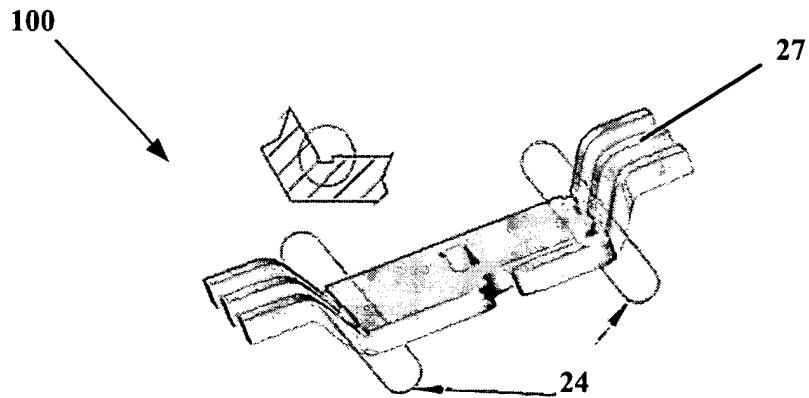
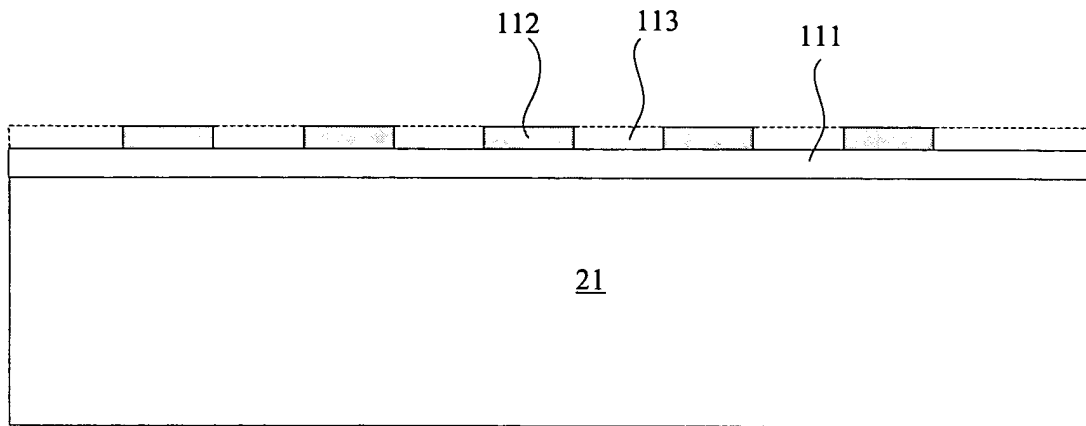
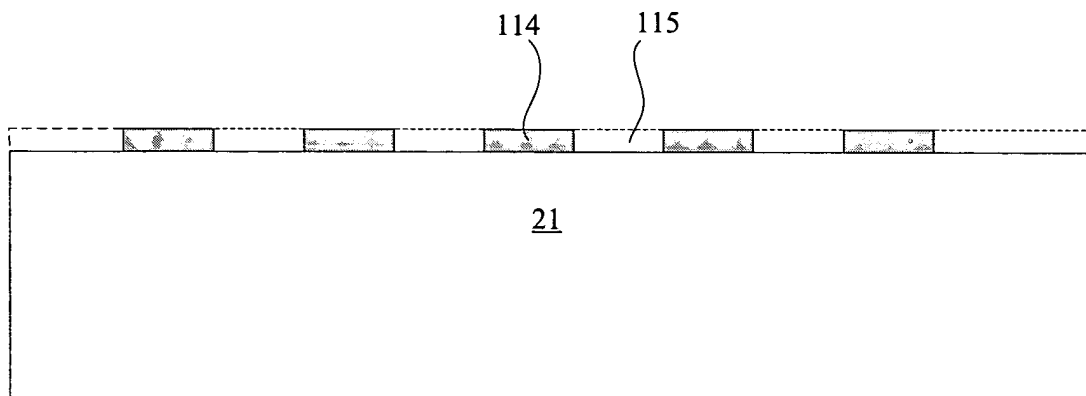


FIG. 4

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INVENTORS: Consuelo N. Tangpuz  
DOCKET NO.: 11948.26

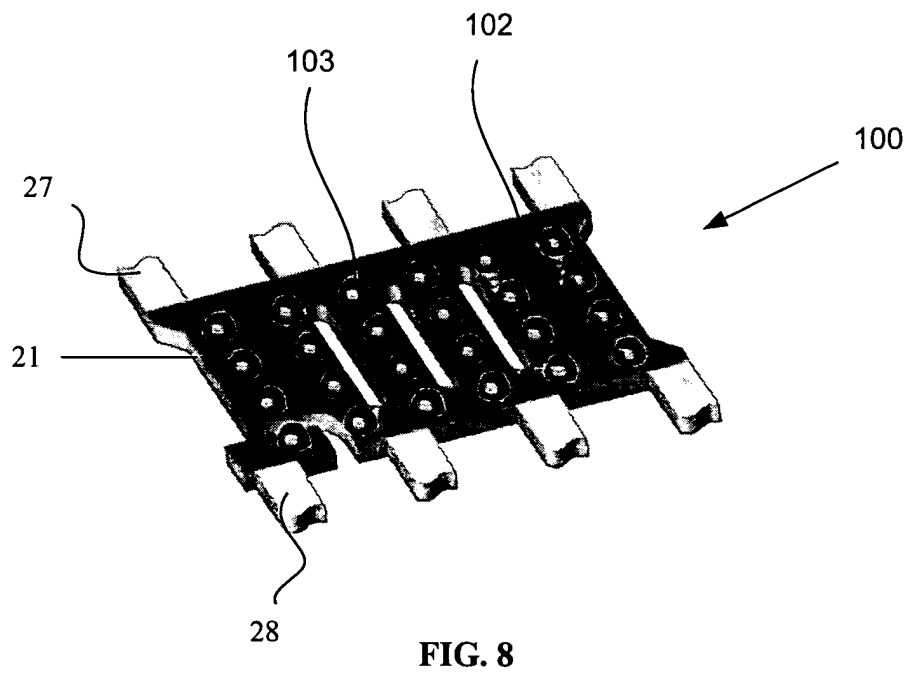
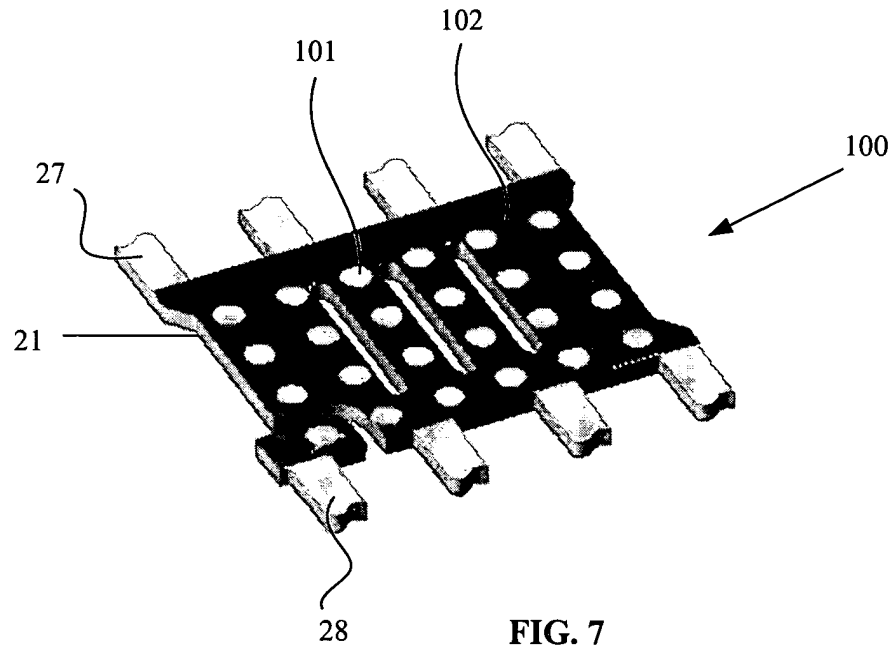


**FIG. 5**



**FIG. 6**

FILE: METHOD FOR MAINTAINING SOLDER  
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INVENTORS: Consuelo N. Tangpuz  
PUBLICATION NO.: 11948.26



FILE: METHOD FOR MAINTAINING SOLDER  
THICKNESS IN FLIPCHIP ATTACH  
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INVENTORS: Consuelo N. Tangpuz  
DRAWING NO.: 11948.26

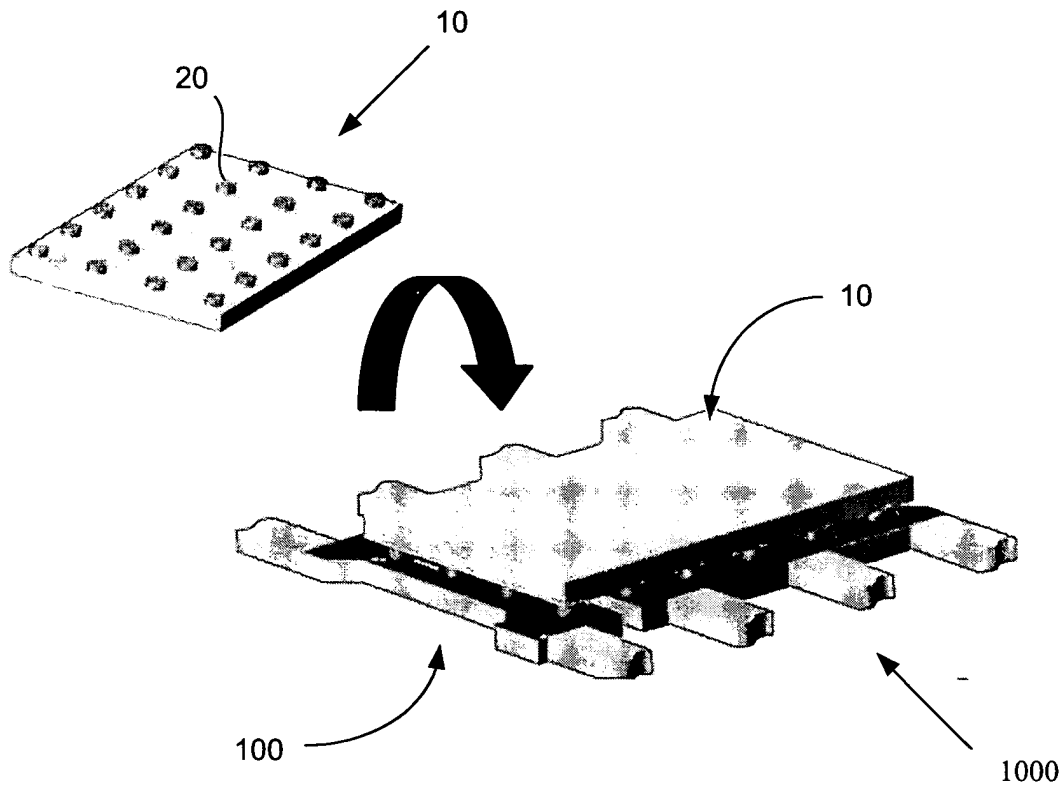


FIG. 9

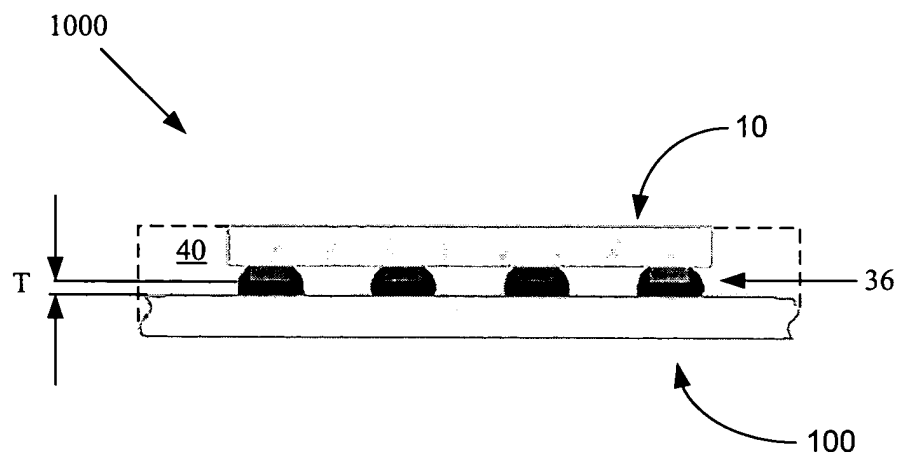


FIG. 10

# SELECTIVE PLATING LEADFRAME

TITLE: METHOD FOR MAINTAINING SOLDER THICKNESS IN FLIPCHIP ATTACH PACKAGING PROCESS  
INVENTORS: Consuelo N. Tangpuz, et al.  
DOCKET NO.: 11948.26

## FULLY SOLDERABLE LEADFRAME PAD

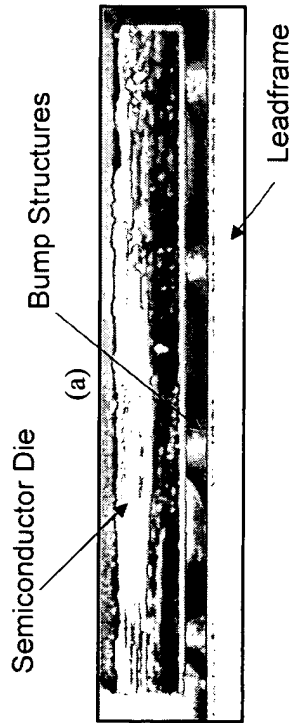


Fig. (a) is a photo of attached die with metal stud in a fully solderable leadframe pad.

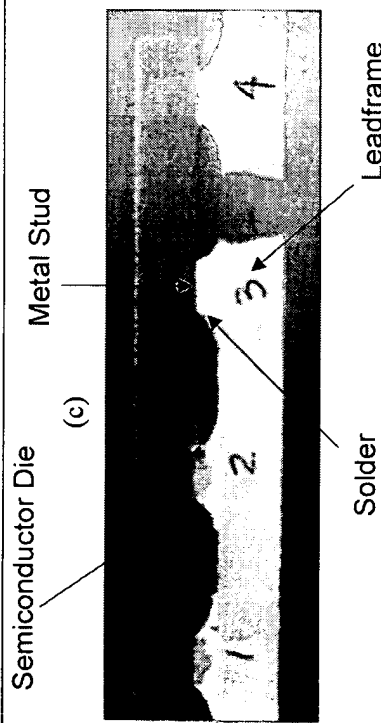


Fig. (c) is a SEM photo of cross-sectioned die with metal stud attached in a fully solderable leadframe pad. The solder spreads widely in the pad and the solder thickness between metal stud and leadframe is thin.

## SELECTIVE SOLDERABLE LEADFRAME PAD

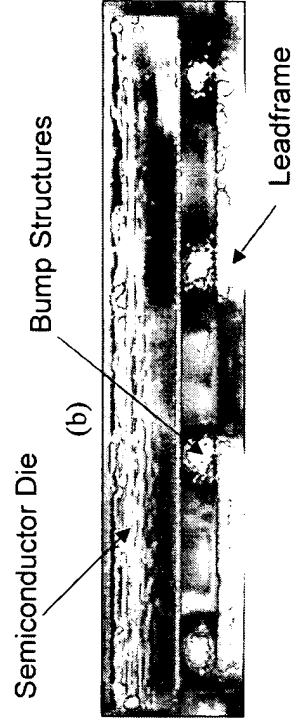


Fig. (b) is a photo of attached die with metal stud in a selective solderable area of leadframe pad.

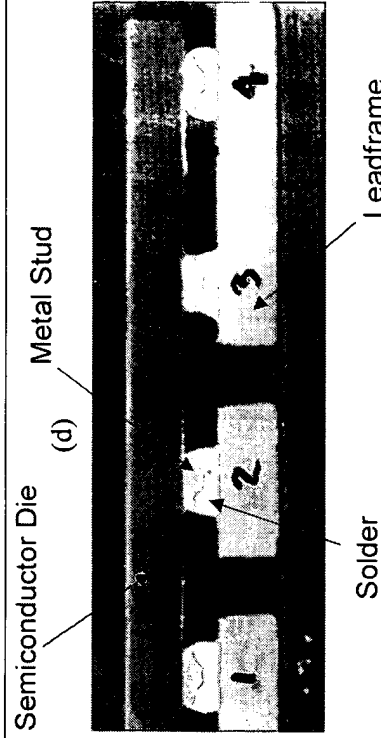
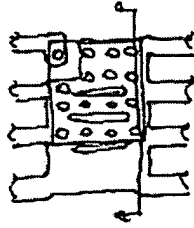
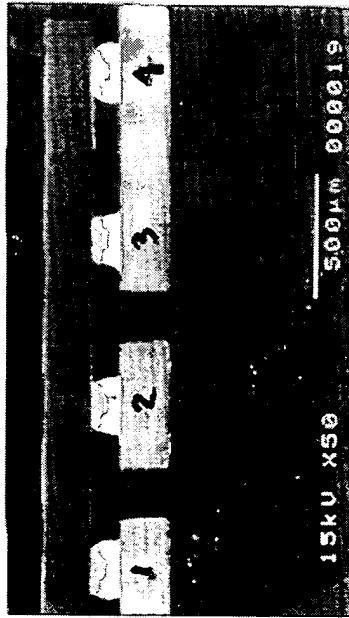


Fig. (d) is a SEM photo of cross-sectioned die with metal stud attached in a selective solderable leadframe pad. The solder is limited to a certain area of the leadframe and the solder thickness between metal stud and leadframe is thick.

FIG. 11

# SELECTIVE PLATING LEADFRAME

CROSS-SECTION (SELECTIVE PLATING FRAME)



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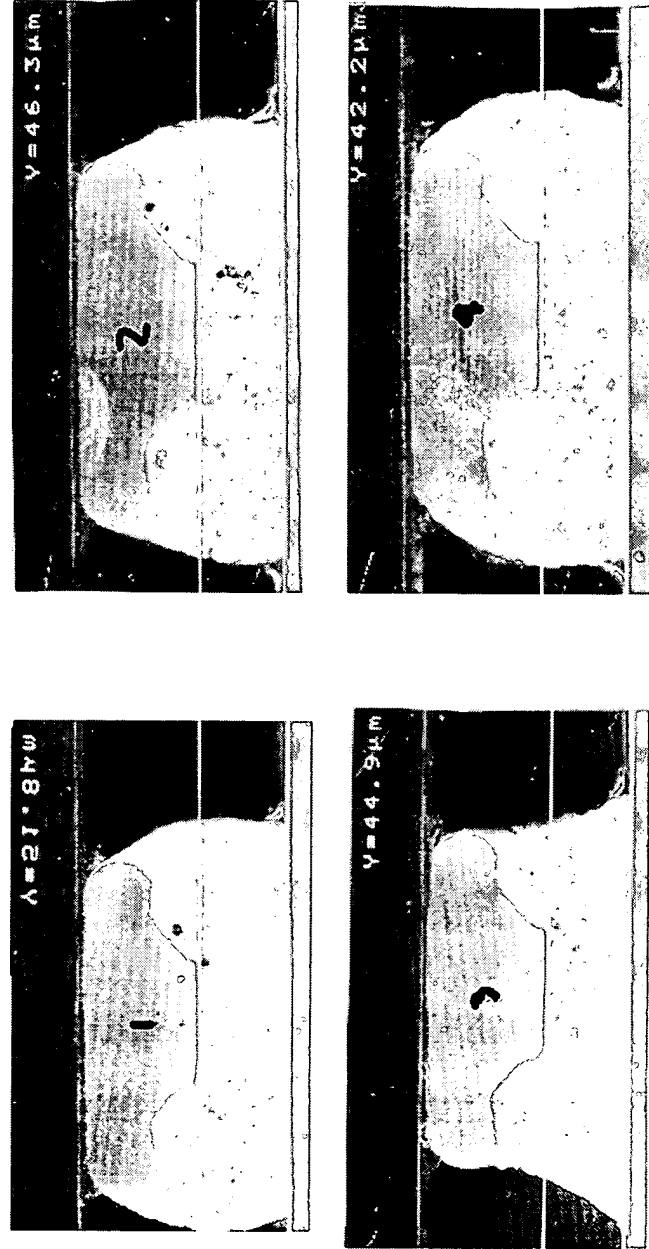


FIG. 12

# SELECTIVE PLATING LEADFRAME

CROSS-SECTION (NON - SELECTIVE PLATING FRAME)

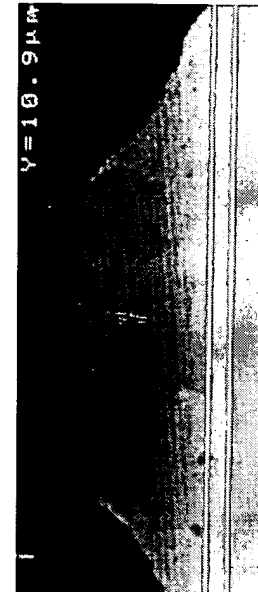
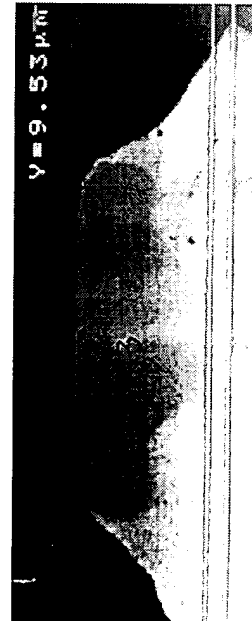
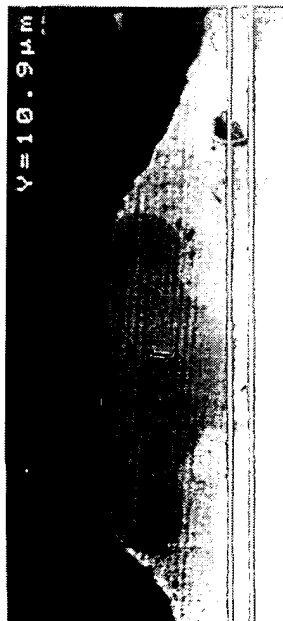
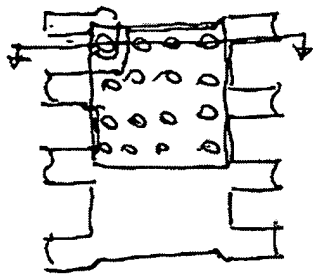
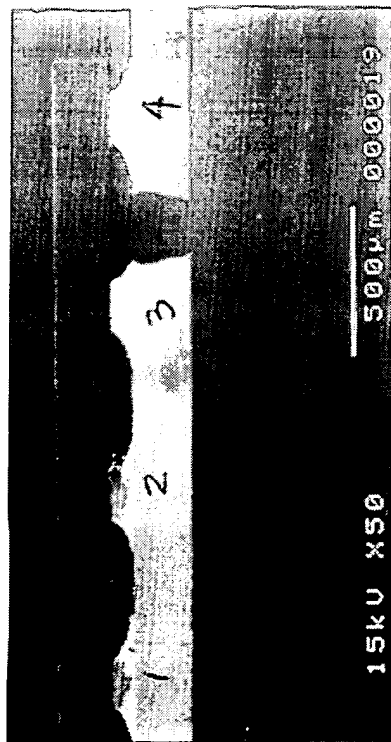


FIG. 13

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INVENTORS: Consuelo N. Tangpuz, et al.  
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